

Atty. Dkt. No.: EPI3007E  
(formerly TSRI 184.2CON4)

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sequence forming a secretion signal, said light chain derived from an antigen-specific immunoglobulin comprising a heavy and light chain and;

(b) immunoglobulin product encoded by said nucleotide sequences wherein said leader sequence is cleaved from said immunoglobulin light chain following proteolytic processing, said light polypeptide product being capable of forming an antigen-specific immunoglobulin when co-expressed in the same cell with said heavy chain from said antigen-specific immunoglobulin.

C2

54. (Amended) The plant cell of claim 55 wherein the immunoglobulin product is a single-chain antigen-binding protein.

C3

55. (Amended twice) The plant cell of claim 53 wherein the immunoglobulin product further comprises at least a portion of the variable region of an immunoglobulin heavy chain.

56. The plant cell of claim 53 wherein the immunoglobulin product comprises a full-length immunoglobulin light chain.

C4

57. (Amended) The plant cell of claim 55 wherein the immunoglobulin product is an abzyme.

C5

58. (Amended twice) The plant cell of claim 55 wherein the immunoglobulin product comprises a Fab.

59. (Amended twice) The plant cell of claim 55 wherein the immunoglobulin product comprises a Fab'.

60. (Amended twice) The plant cell of claim 55 wherein the immunoglobulin product comprises a F(ab')<sub>2</sub>.

C6

61. (Amended) The plant cell of claim 55 wherein the immunoglobulin product comprises an Fv.

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C7 62. (Amended twice) ~~The plant cell of claim 55 wherein the immunoglobulin product comprises a full-sized antibody.~~

63. The plant cell of claim 53 wherein the plant cell is from a dicotyledonous plant.

64. The plant cell of claim 53 wherein the plant cell is from a monocotyledenous plant.

65. The plant cell of claim 53 wherein the plant cell is from an alga.

67. The plant cell of claim 53 wherein said immunoglobulin light chain variable region is a full length variable region.

68. The plant cell of claim 53 wherein said nucleotide sequence also encodes at least a portion of the constant region of an immunoglobulin light chain.

C8 70. (Amended) ~~The plant cell of claim 55 wherein said portion of said heavy chain is from a heavy chain selected from the group consisting of IgG, IgM, IgA, IgD and IgE.~~

71. The plant cell of claim 54 wherein said single-chain antigen-binding protein comprises at least a portion of the variable region of a light chain and at least a portion of the variable region of a heavy chain.

72. The plant cell of claim 71 wherein said portion of said heavy chain is from a heavy chain selected from the group consisting of IgG, IgM, IgA, IgD and IgE.

73. The plant cell of claim 72 wherein said single polypeptide further comprises a linker sequence encoded by nucleotide sequence located between the nucleotide sequence encoding said immunoglobulin light and heavy chain.